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www.ncparks.gov

Pat McCrory Governor

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John E. Skvarla, III Secretary, DENR

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STATE PARK OPENS

Carvers Creek State Park in Cumberland County. North Carolina's newest state park, opened its gates to the public Sept. 6, inviting North Carolinians to enjoy hiking, picnicking, fishing and interpretive programs at interim facilities at its historic Long Valley Farm access.

Carvers Creek becomes the 42nd state park unit open to the public. Those include state parks, state recreation areas and publicly available state natural areas (among a total 20 state natural areas).

Authorized by the legislature in 2005 as part of the division's New Parks for a New Century initiative, Carvers Creek encompasses 4,332 acres in two principal parcels. It is



James S. Rockefeller's 1930s-era home is a landmark at the park. the eighth state park opened since 2001.

"Carvers Creek State Park opens with tremendous strengths, combining

significant natural resources, such as longleaf pine forests, with the impressive cultural resources of a historic estate."

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COMMUNITY HELPS PARK AFTER STORM

On June 14, about the time campers were washing supper dishes, a powerful storm descended on Morrow Mountain State Park with a suspected microburst that downed hundreds of trees, crushing camper shells, damaging park buildings and stranding dozens of visitors.

After gallons of chainsaw fuel, most park facilities reopened seven weeks later,

including the elegant 1930s-era swimming pool, boathouse, boat ramp, fishing pier, museum, restored Kron House and campsites.

Nearly 100 state park rangers and maintenance mechanics from other (seasonally busy) parks across the state spent days at Morrow Mountain helping with the cleanup. Tremendous support also came from volunteers and area businesses.

The state park thanked the community with a "free re-opening" event, suspending fees for swimming and onehour boat rentals. More than 200 people took advantage of the offer on a quiet Monday.

Park Superintendent Greg Schneider himself dodged falling trees during the storm event. He said the first volunteers were campers J.R. Drake

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Department of Environment and Natural Resources

FORT FISHER LESSENS RIPTIDE DANGER

Fort Fisher State Recreation Area is known for pristine beaches and great fishing.

Unfortunately, its beach and those nearby are also getting a reputation for relentless rip-

From The Director's Desk

This month we welcomed Carvers Creek into the family of state parks. This much-anticipated addition to our system offers tremendous potential with 4,332 acres easily accessible in a fast-growing region. The opening also is a reminder that the creation of a state park is very much a collaborative effort

The state parks system had many partners in making this happen, none so involved early-on as The Nature Conservancy. TNC donated the 1,420-acre estate of James Stillman Rockefeller, which contains historic structures, well-tended longleaf pine forest and a beautiful pond and wetlands. A conservationist in his unique way, Rockefeller bequeathed the estate to TNC upon his death in 2004. The conservancy also worked closely with our land protection team to identify other property that could be included in the state park. Commanders at the U.S. Army military installation at Fort Bragg also saw the state park as a much-desired buffer area and enthusiastically offered support. Acquiring the property also required the support of the N.C. Parks and Recreation Trust Fund Authority, which never wavered.

Going forward, the partnership that will likely become most important is with the community of Cumberland and Harnett counties. Local support for a state park is vital to success. The park's first superintendent Janet Pearson (now at Stone Mountain) was aggressive in getting volunteers involved. Current Superintendent Jane Conolly and her staff have nurtured that effort, which gives the community a personal connection to the park. More formal ties with the community will be developed through the Carvers Creek park advisory committee. Every state park has such a group that acts as a liaison and sounding board for park development.

People of Fayetteville, Spring Lake, Fort Bragg and surrounding counties have shown much love for nearby Raven Rock and Lumber River state parks. It's exciting to add Carvers Creek State Park to the family.

We're also excited to announce a new partnership with the Division of Travel, Film and Sports Development. Our park rangers will be making regular fall foliage reports to www.visitnc.com, the Internet showroom for North Carolina's travel and tourism efforts. Residents and visitors can track peak fall color as it marches across the state. The state parks, with miles of trails and dramatic vistas, play a significant role in the fall tourism season, an economic staple that benefits so many communities, especially in western North Carolina. It's good that the parks and their rangers can play a more active role in promoting that economy.

Sincerely,

Lewis Ledford

tides under certain weather conditions. The riptides can sweep even strong swimmers away from the beach at surprising velocity.

During this year's swimming season, which officially ended on Labor Day, the five-person lifeguard crew logged more than 50 rescues, snatching swimmers from dangerous currents.

The rescue of swimmers at Fort Fisher has been so recurrent that one lifeguard was captured on videotape twice performing rescues – and incredibly by the same TV news crew visiting the park on different days for unrelated stories.

Fort Fisher is among the busiest state park units in North Carolina open to the public, with more than threequarter million visitors each year.

In hot weather, swimming is the principal activity at the park, which maintains a 200-yard designated swim area at one end of a four-mile beachfront. On average weekdays, the park welcomes several hundred swimmers; on weekend days and holidays, more than 500 swimmers may appear.

The bravery of the lifeguard crew – Chief Graham Taylor, Caleb Epler, Michael Kanupp, Hunter Kunz and Madison Utz – is unquestioned (along with that of our lifeguards at all state park swim areas).

But, keeping so many Fort Fisher swimmers safe required an all-out effort by the entire park staff. Realizing there was a real safety issue with riptides, the lifeguards

CONTINUED ON PAGE 3

Parks set prescribed burn record

The state parks system had a record year in 2012 for its prescribed fire program, with burns totaling about 3,000 acres in 14 state parks and state natural areas, according to the natural resource management program.

The acreage is 53 percent higher than any prior year and six times that of a decade ago,

"This is truly a divisionwide success story, however we can't ignore some spectacular achievements by some parks," said Jon Blanchard of the natural resource program.

Those include South Mountains State Park, which burned 1,171 acres in a coordinated effort with the North Carolina Forest Service and the Wildlife Resources Commission – the largest single-park burn in history. Nearly 600 acres was burned at Sandy Run State Natural Area, and Morrow Mountain State Park had its first significant burn with 600 acres.

A majority of state parks now have an active fire management program with burns aimed at improving firedependent plant communities and reducing fuel loads on the forest floor, which lessens the



PRESCRIBED BURNS ARE BECOMING MORE PREVALENT IN WESTERN PARKS. chances of uncontrolled wildfire. time-consuming part of the

Blanchard credited a number of factors with the success, including an aggressive burn crew under the direction of coordinator Mike Leslie, along with more training to bring more "burn boss" coordinators and rangers into the effort.

The system took full advantage of a team of AmeriCorps volunteers in cool weather months and developed deeper partnerships with the forest service, the Wildlife Resources Commission and The Nature Conservancy.

There was a bit of luck, also. Identifying and building fire lines is an expensive and

time-consuming part of the process, Blanchard said, and weather in the prior year 2011 helped with that. There weren't as many days suitable for burning in that year so crews turned their attention to fire lines.

Weather cooperated in 2012, he said. "And there was simply the momentum of a developing fire program with the division that is making fire a more accepted and essential part of park management."

More mountain acres have been placed under prescription fire than ever before as the division has gained more experience in the west, and the benefits of prescribed fire there have become more evident.

FORT FISHER

CONTINUED FROM PAGE 2

and park staff brainstormed and came up with a broad plan of action that altered procedures and involved the entire park.

Just a short list of the changes includes: building a higher lifeguard tower to get an unobstructed view of the swim area; posting riptide information throughout the visitor area along with a flag warning system; personally alerting swimmers in the evenings when lifeguards go off duty; constant patrols by foot and all-terrain vehicles on very busy days; and, a ban on using cell phones by lifeguards except for 911 calls.



Pristine beaches draw swimmers to Fort Fisher.



The summit offered time to relax and connect and to hear inspiring talks.



Outdo Nati

MILLENNIALS SEEK TO CONNECT OTHERS

After brainstorming all day, new recruits of Outdoor Nation needed a place to rest their brains, and Jordan Lake State Recreation Area was just the thing.

North Carolina's state parks system co-hosted one of three national Outdoor Nation summits for 2013 in June. UNC-Chapel Hill was the venue for two days of intense discussion by 140 young millennials on how to get more young people involved in outdoor pursuits and conservation.

Between sessions, they camped at the park. There was also time for a short Yoga lesson and inspiring talks by ambassadors from The North Face outfitters.

The Outdoor Nation initiative wants to stimulate and energize young adults who spend hours indoors in front of television or computer screens. Outdoor Nation is designed to address the disconnect from nature contributing to increased environmental apathy as well as major physical and mental health challenges among young people.

Outdoor Nation was launched in 2010 by a partnership of The Outdoor Foundation, Recreational Boating and Fishing Foundation, The REI Foundation, the National Park Service, and The North Face.

Its mission is to increase youth participation in outdoor activities, especially among urban communities, promote healthy lives, and developing a new generation of environmental activists. Admission to the summit was free and young people ages 16-28 were invited.

"The North Carolina state parks system is committed to instilling a stewardship ethic to our more than 14 million annual visitors and we were very excited to co-sponsor and host this event," said Lewis Ledford, state parks director. "North Carolina is very proud of its leading status as an outdoor state and this partnership will help us reach young leaders especially those in underserved communities -- positioning the state for success in the future."

Individually or in teams, many of the young people will now submit grant applications for projects to further the Outdoor Nation cause.



Brainstorming on how to engage young people.

Great Outdoors Month fills parks

First came National Trails Day on June 1 and then National Get Outdoors Day on June 8, as Great Outdoors Month gathered steam in the state parks system.

Several parks organized trail workdays to contribute to an old tradition of improving hiking resources on the first Saturday in June. At Hanging Rock State Park, the new River Bluffs Trail touching on the Dan River was inaugurated. It was built entirely by volunteers, an effort organized by the Friends of Sauratown Mountains.

A highlight of National Get Outdoors Day was the dedication of two new TRACK trails specially designed for youngsters at Morrow Mountain and Lake Norman state parks. This followed a similar dedication for the Holly Discovery Trail at Lake James State Park June 3.

The TRACK Trails program of the Blue Ridge Parkway Foundation and its partners is a network of self-guided hiking trails with activities and learn-



ing experiences for youngsters. The state parks system has so far designated 10 TRACK trails.

The day also prompted special interpretive programs at a number of parks. Raven Rock State Park hosted a "pollinator" party with a beekeeper and programs about the importance of those insects. At Haw River State Park, the Sierra Club delivered a group of inner-city youngsters for lessons in out-

door skills, such as orienteering and fishing.

There was still more to come. The Great American Backyard Campout was June 22. And June 29-30, Jordan Lake State Recreation Area and UNC-Chapel Hill were venues for an Outdoor Nation summit, when millennials (generally ages 16 to 28) gathered, exchanged ideas and submitted grant applications for outdoor initiatives.

CITIZEN SCIENCE EVENT STALKS MOTHS

More than 100 people helped with a citizen science project in August at William B. Umstead State Park, collecting and counting moth species. Over two nights, 116 species were inventoried and added to the park's database.

One of the highlights of each night was gathering for an introductory talk on moths while a colony of big brown bats departed from their daytime roost directly overhead.

Then armed with headlamps and flashlights, children and adults searched for moths, wandering about with an array of light attractants. These included spotlights, UV lights, mercury vapor and halogen lights and even plain white sheets and a "bug zapper" with its electrifying grid disabled.

Along with the netting safaris, there was a moth seminar for adult educators, rangers and



Over two nights, *116 species were inventoried*. other park staff with some of the top moth experts in North Carolina helping out.

Participants came across many familiar species such as luna moths, imperial moths and the rosy maple moth, as well as a variety of other insects including hoppers, spiders, spider wasps and "assassin bugs."



Races were a big part of the Crystal Coast Paddle Festival including dragon boat races, above, and the Mullet Cup 3K loop, right.



First paddle festival makes a splash

At the first-ever paddle festival at Hammocks Beach State Park, you could learn to race a kayak, maneuver a paddleboard, build a toy boat from recycled stuff, dig a dugout canoe...or paddle to the beat of a different drummer.

Paddlers and paddles of all shapes and sizes converged in the marshes surrounding the state park with organizers estimating a crowd of about 2,000 visiting the two-day event.

It was held to celebrate the growing sport in coastal North Carolina and as a fundraiser for the park's friends group, the Swansboro Area Development Foundation and the White Oak-New Riverkeeper Alliance.

The festival revolved around vendors who offered demos of kayaks and paddleboards, displays of paddlecraft and a series of races. A one-mile Pirate Paddle scavenger hunt was a fun exercise on opening day, while Swansboro's traditional 3K Mullet Cup race brought out the serious kayakers with swifter boats.

Six teams signed up for spectator-friendly dragon boat races – head-to-head sprints between long, slim craft powered by paddlers. A drummer sitting in the bow attempted to keep everybody's strokes in time.

Rangers from Kerr Lake State Recreation Area and Pettigrew State Park brought American Indian-style dugout canoes launched as interpretive projects, reflecting the centuries-old history of North Carolina coastal paddling.

Those displays were augmented by kids' activities including painting a kayak and building and floating toy boats.



PADDLERS COULD TRY OUT KAYAKS AND PADDLE-BOARDS, AND KIDS WERE INVITED TO CREATE TOY BOATS FROM RECYLED MATERIALS.



LAKE WACCAMAW TACKLES HYDRILLA

Lake Waccamaw State Park, with the help of a consortium of state agencies and experts, began an intensive treatment this summer for an infestation of the aquatic weed hydrilla.

Contractors in a pair of small boats began spreading a granular form of the chemical fluridone near the lake's northwest shoreline in hopes of attacking the weed just as it emerges for its usual hotweather growth spurt. The affected area is near the largest of two public boat ramps on Lake Waccamaw.

The application poses no danger to swimmers, boaters or others in contact with the lake's waters.

Hydrilla is a submerged aquatic plant that can create nearly impenetrable mats of stems and leaves on a lake's surface. An invasive species from central Africa, hydrilla impedes recreational use of waterways, crowds out native vegetation and can ultimately harm fish and other aquatic species.

That's particularly worrisome at Lake Waccamaw, which is home to about 50 species of fish and mollusks. Many are rare or endangered and some are endemic, occurring nowhere else.

Hydrilla's spread is often attributed to boats that are trailered from lake to lake, and an educational campaign has begun to encourage boaters to repeatedly wash their craft, especially boat propellers, after use.

Residents on the 8,938acre lake and local officials were as alarmed as park rangers

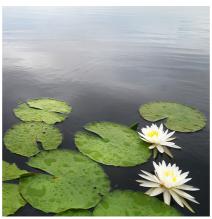


CONTRACTORS SPREAD GRANULAR FORM OF FLURIDONE NEAR SHORELINE.

when hydrilla was noticed there in 2011, since the Carolina bay lake is an economic engine in the rural community and a backdrop for the homes of many retirees.

Researchers from North Carolina State University mapped the infestation at more than 900 acres. Left unchecked, the infestation could spread to about 1,500 acres within a year and to about 5,700 acres within three years.

The Town of Lake Waccamaw and Columbus County contributed \$50,000 each



Hydrilla can crowd out native species such as lilies.

toward the \$196,660 cost of the initial treatment, matched by funds from the Department of Environment and Natural Resources. Other treatments may be necessary this summer, and certainly will be required over the next several years. Estimates of the cost range as high as \$500,000 each year.

The response to the infestation is being coordinated by a Lake Waccamaw Technical Advisory Committee, with representatives from seven state and federal agencies as well as other stakeholders.

The committee considered a range of treatment options, such as the introduction of grass carp, but determined that chemical application was the most appropriate considering the lake's rare, endemic species.

This is the first recorded hydrilla infestation of a Carolina bay lake. Lake Waccamaw is the largest of the natural bay lakes in southeastern North Carolina and holds the status of National Natural Landmark. said Lewis Ledford, division director. "We're excited about the continued development of this state park for recreation, conservation and education and its long-range potential in a dynamic and fast-growing region of the state."

Carvers Creek was created in close partnership with The Nature Conservancy, which donated the 1,420-acre Long Valley Farm and aided in the acquisition of important tracts in the park's nearby Sandhills area adjoining the U.S. Army military installation at Fort Bragg.

The conservancy gradually closed out a working farm operation at the site and turned the tract over to the state parks system in 2010 after an intensive longleaf pine planting effort and a stream restoration project.

A 2012 master plan for the state park directs that the 2,912-acre Sandhills area will ultimately be the site for a visitor center, camping and other park amenities, but that much of the property, with its fragile ecosystem, will be preserved in its natural state.

Long Valley Farm was originally the estate of James Stillman Rockefeller, who bequeathed it to The Nature Conservancy upon his death in 2004. It was once part of the Rockefeller family's larger Overhills estate.

At the site, traditional state park facilities such as hiking trails, picnic grounds, fishing areas and a ranger contact station have been integrated among the historic structures.

The estate's residence,



HISTORIC STRUCTURES INCLUDE THIS PAVILION AND SMALL PUMP HOUSE.

built in 1939, is on the National Register of Historic Places and is complemented by a large pavilion, a 100-acre lake, a small power plant and numerous farm outbuildings. Some buildings will eventually be renovated and opened to the public to interpret the land's agricultural history that dates to the mid-1800s.

In addition to stands of longleaf pine, the farm is home to federally endangered red-cockaded woodpeckers, fox squirrels and carnivorous pitcher plants.

The interim facilities

at the park represent an investment of \$756,000 from the N.C. Parks and Recreation Trust Fund. In addition, the park has held a series of volunteer workdays to get people in the community involved in its development.

The four-person staff at Carvers Creek State Park is under the direction of Superintendent Jane Conolly. The park will be open daily except for Christmas Day, and hours during the fall season are 8 a.m. until 8 p.m.The park is located off East Manchester Road, just east of Spring Lake.



A 100-ACRE LAKE OFFERS WILDIFE VIEWING AND FISHING OPPORTUNITIES.

CONTINUED FROM PAGE 1

and his wife. Their car was immediately blocked in the campground.

"Mr. Drake joined a park employee, who was also stranded in the campground, in surveying on foot each of the 106 campsites to ascertain if campers were okay or in need of additional assistance. This survey was completed in blustery winds and driving rain, tromping through a tangle of twisted and fallen timber," Schneider said.

Mrs. Drake meanwhile took charge of two young boys separated from their parents.

Overnight, the priority was accounting for all park visitors in the campground, near the lake and at the mountain summit. Miraculously, there were no injuries.

Daylight the next morning revealed seven park buildings hit by trees including a severely damaged vacation cabin, nearly all roads blocked and underground utilities damaged by tumbled tree roots.

Many people and



THE PARK'S CAMPGROUND WAS ONE OF THE AREAS HARDEST HIT BY STORM.
organizations pitched in for ment, under manager Hal

organizations pitched in for the cleanup, Schneider said, beginning with the East Side Volunteer Fire Department, the Stanly Rescue Squad, the N.C. Forest Service and staff from Boy Scouts of America Camp Barnhardt.

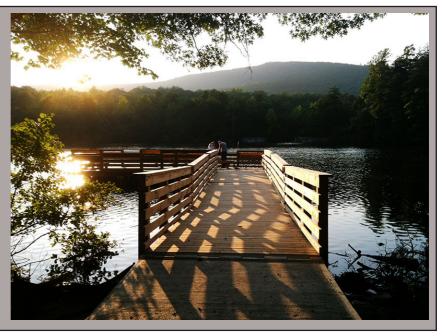
Neighbors began calling to offer help and a volunteer cleanup day was held June 29 to take advantage of those offers. Lowe's Home Improvement, under manager Hal Knight, donated cases of drinking water and Gatorade to the sawyers, chipper operators and laborers.

Some areas of the park reopened to visitors in stages, especially trails and bridle trails and the hardest hit loop of the campground.

Downed trees coupled with damaged-but-standing timber posed risks for weeks.

HANGING ROCK FISHING PIER

Hanging Rock State Park has a new 70-foot fishing pier, thanks to maintenance mechanics Garry Hoover and Gary Pippen and the Wildlife Resources Commission. It's wheelchair accessible. Ranger Sam Koch, intern Arielle Harwood and volunteer Brian Stewart demolished the old 30-foot pier to make it all possible.



DATABASE NOW TRACKS 10,500 SPECIES

On Aug. 14 at exactly 10:34 p.m., a major milestone was reached in our knowledge about state parks – the 200,000th "occurrence record" of species was logged into the system's Natural Resources Inventory Database (NRID).

An occurrence record is simply an observation of a species in the parks. Every time a state park ranger or biologist – or a visiting researcher – spots an interesting plant, animal or insect, they may do more than make a mental note. They may log the sighting on the NRID accompanied by a photo.

The entries include every imaginable organism – from interesting algae to a zebra swallowtail butterfly. They could be casual observations of a northern cardinal at a feeder or the results of a beetle expert's forays over a number of days.

More than 10,500 different species are known to comprise the diversity of life in the state parks, with "new" species being noted weekly. A recent "bioblitz" at Weymouth Woods State Historic Preserve by rangers, volunteers and experts from universities and other agencies resulted in several hundred new entries in a single day.

Besides the pure science of it, the database helps natural resource managers and park planners make intelligent decisions about growing and developing the state parks. For example, roads, trails and buildings can be placed to avoid important habitats or rare species.

About 60 state park



Researchers from other agencies often add to NRID entry list.

units are represented on the database, including parks, recreation areas, undeveloped state natural areas and lakes.

The NRID grew from a rudimentary database devised in the mid-1990s by Tom Howard, a district naturalist at the time, who combined his interests in biology and computer technology to keep track of species sightings in his district. (Howard is now retired from the state parks system, but continues to develop technology solutions for the state parks system as a temporary employee.)

When Seth Lambiase, a former inventory biologist, began collecting data from park

REPTILE Kinosternon baurii Striped Mud Turtle 4288 x 3216 pixels

INSECT Anax junius Common Green Darner 3672 x 4896 pixels

Epargyreus clarus Silver-spotted Skipper 3672 x 4896 pixels

files about species observations, he and Howard collaborated to create an online system in 1999 where these and other records could be housed.

Researchers from throughout the nation can sift through the records, and some of the photos have been used in textbooks.

Ed Corey, the current inventory biologist, said, "To reach such an epic mark in only 14 years says much about the dedication of field staff across the division to document the species that occur within our park lands. It also shows the tireless effort and vision that Tom has devoted to such a lasting endeavor as the NRID."



The online database lists both common and rare species spotted.

Mobile app challenge: visit all parks

Cooler weather's here, but interest is heating up on the North Carolina State Parks free Pocket Ranger® mobile app. That's because we just launched a new GeoChallenge (a popular alternative to geocaching) designed to help everybody make the most of outdoor explorations.

The North Carolina State Parks Passport Challenge uses the app's advanced GPS mapping features to guide you to all of the state's spectacular state parks, offering the chance to win gift cards and outdoor gear.

The goal of the Geo-Challenge? Be the first to visit all of North Carolina's state parks. As you travel, you'll rack up points at each location. Easy-to-reach parks will earn five points, while more challenging, out-of-the-way locales can snag up to 20. Along the way you'll visit breathtaking mountains, dune-strewn beaches, interesting geological features, and more of North Carolina's most unique spots.

With the North Carolina State Parks Passport Challenge, you can score prizes and engage in a bit of friendly competition. All of those points you'll be earning will put you one step closer to the grand prize, a \$100 gift card to an outdoor retailer.

The lucky runner-up will nab a \$50 gift card. Even if you can't make it to all of the destinations, you'll still have a chance to earn a prize. The first 10 players to visit 10 individual state parks will receive a piece of cool Pocket Ranger® gear.

Of course, rewards aren't the only thing you can earn as you play. There's also the satisfaction of seeing



yourself atop the leaderboard. Knock out other players as you ascend to the top, and keep tabs on your fellow competitors.

Getting started is easy: go to www.pocketranger.com to download the North Carolina State Parks Pocket Ranger® app. Register with a username and password, then select "Join this Challenge!" on the North Carolina State Parks Passport Challenge description page.

Once you're registered,

you can also join the challenge through the app by tapping the "Challenges" button on the home screen, selecting "Login", and then using the "GeoChallenges" tab to access the North Carolina State Parks Passport Challenge where you can select "Start".

The challenge runs until September 1, 2014, so you have plenty of time to visit the parks in the seasons when they're most beautiful.

Youth Trail Challenge

The first young person TO COMPLETE THE SOUTH Mountains State Park YOUTH TRAIL CHALLENGE WAS NATHAN RICHARD, 9. OF CLEVELAND COUNTY, WHO RECORDED HIKES OF MORE THAN 12 MILES. Nathan and his mother ACTUALLY COVERED MORE THAN 30 MILES OF TRAIL DURING MULTIPLE TRIPS, AND HE RECEIVED A CERTIF-ICATE AND A SPECIAL PATCH COURTESY OF THE PARK'S FRIENDS GROUP, WHICH IS PROMOTING THE PROGRAM.



RANGER LAUNCHES CANOE PROJECT

An old stone artifact handed down in Jason Murvine's family has finally led to an immensely long project – construction of a 24-foot dugout canoe.

It lies on a bed of wood splinters at the intersection of park roads at Kerr Lake State Recreation Area, right where it fell, hidden inside an aged tulip poplar. Dressed in American Indian garb, Ranger Murvine in his spare moments, chips, burns and scrapes away everything that isn't a canoe. Of course, he attracts plenty of questions and curious visitors, especially youngsters, which give him an opening to stage interpretive programs around the project.

As a small, slow-burning fire turns the heartwood to cinders, visitors are invited to scrape away with mussel shells found on the lake's shore. Then, the fire's hot coals are shoved further along the canoe's length and the process is repeated.

"I just thought it'd be fun to 'relive' something I've never experienced before and I thought maybe other people would think it's fun. Personally, that's the kind of park I like to visit," Murvine said.

The project and the interpretive talks are especially popular with visitors who enjoy camping at the lake, but don't have a boat; they're always drawn to something interesting going on, he said.

The work's going well, but not quickly. "Maybe we can launch it this summer, but it may be next year," Murvine said. American Indians could produce such a dugout in two or three weeks, he said, but they had more skilled labor.

Growing up in his native Ohio, Murvine was always told the old artifact given him was sort of a generic "hatchet," but after he delved more deeply in his study of American Indian crafts, it dawned on him that it is an adze – the perfect tool for boatbuilding.

It's now strapped to a new handle with artificial sinew, but he uses it mostly as an interpretive tool, having roughly shaped the canoe with a modern adze and the occasional help of a chainsaw.

When finished, the dugout will be only about 20 inches wide with less than 24 inches of interior depth, so it'll take some skill to navigate.

Traditionally, two paddlers kneeled in the middle with one person standing at each end.



After a slow-burning fire turns the interior to charred wood, visitors are invited to scrape.

American Indians in this part of northeastern North Carolina were certainly familiar with dugout canoes, Murvine said, but native "shad boats" would likely have been more prevalent since large rivers predated the manmade reservoir. Those smaller boats were designed to act in pairs to set fishing nets.

Large natural lakes farther east prompted wide use of dugout canoes. Several ancient ones have been raised from the bed of Lake Phelps at Pettigrew State Park.

Murvine is already pondering his next project – fashioning arrowheads from glass. And, the bottoms of beer bottles confiscated by rangers seem to be the perfect raw material. "It's a kind of recycling," he said.



Youngsters get a chance to to try out recreations of American Indian hand tools.

HARTLEY LEAVES WEYMOUTH WOODS

Longtime Park Superintendent Scott Hartley retired last week, capping a 30-year career with the state parks system that included 17 years leading Weymouth Woods State Historic Preserve in Moore County.

Hartley "excelled in every facet of a park superintendent's job," said Chief of Operations Mike Lambert at an informal luncheon at the park marking the occasion.

Hartley was known throughout the system for his intensive work in natural resource management, including an aggressive prescribed burn program at Weymouth Woods and efforts to create habitat for the endangered red-cockaded woodpecker.

He was also an ardent naturalist. The system's Natural Resource Inventory Database is a running tally of species identified in state parks and now totals about 178,000 species. Hartley was responsible for identifying about 23,000 of those including roughly 2,000 at Weymouth Woods.

A native of Blowing Rock, Hartley graduated from Watauga High School and in 1983, earned an associate's degree in fish and wildlife management from Haywood Community College.

He worked as a seasonal employee at Mount Mitchell State Park before becoming a ranger at Fort Macon State Park in 1985. He was



Hartley, right, receives retirement certificate from Mike Lambert, chief of operations.

a ranger at Eno River State Park and a naturalist for the east district before being named superintendent at Weymouth Woods in 1995.

Along with natural resource efforts, he expanded interpretive efforts at the park with creative ideas such as programs on humming-bird banding and an annual community birthday party for the world's oldest known longleaf pine.

Lewis Ledford, state parks director, told Hartley, "No matter who comes after you, this park and the parks system is better for the work you've done here."

GREENWOOD TO LEAD SOUTH DISTRICT

Jay Greenwood, formerly the superintendent at Merchants Millpond State Park, has been promoted to south district superintendent for the state parks system. He succeeds Angelia Allcox, who left the division earlier this year.

As one of four district superintendents, Greenwood will be responsible for operations, resource management, environmental education programming, law enforcement, safety and facility maintenance for ten state parks across southern North Carolina as well as Weymouth Woods State Historic Preserve.



"Jay obviously has broad experience as a ranger, park superintendent and natural resource manager and has been adept at engaging public support for Merchants Millpond and the state parks system," said Lewis Ledford, state parks director. "He is highly qualified for the range of challenges that a district superintendent encounters in a growing state parks system."

Greenwood has served as Merchants Millpond State Park's superintendent since 2003. A native of Maryland, he graduated from Delaware State University in 1995 with a bachelor's degree in wildlife management.

He gained experience with the Bombay Hook National Wildlife Refuge and the Delaware Division of Fish and Wildlife as an interpreter and biological aide before joining the state parks system in 1996 as a ranger at Goose Creek State Park. He holds certifications in environmental education and advanced law enforcement, and has served as a prescribed burn boss and canoe/kayak instructor.

Success celebrated at Jones Island

The idea of spending the day on a secluded island apparently is very appealing to people. About 4,000 volunteers have, to date, spent more than 23,000 hours laboring on Jones Island at Hammocks Beach State Park, turning it into an environmental education outpost and living laboratory.

The N.C. Coastal Federation, which teamed with park staff in arranging the project, decided to give everyone a day off Aug. 14 with a "celebration of coastal habitat restoration" on the 22-acre island near Swansboro. That included a picnic lunch among the island's live oaks, yoga, kayaking and outdoor games.

There was also ample time just to relax and digest all that has been accomplished in the past seven years -1,850 linear feet of manmade oyster reef and 89,186 plugs of marsh grass planted along the shoreline.

Boatloads of brush and trash were removed from the island, and a defunct private campground was renovated into a prime spot for environmental education day camps.

Even on the celebration day, volunteers decided to haul 500 bags of oyster shells to the island since they were headed that way anyway, said Park Superintendent Paul Donnelly.

"It has been exciting and enjoyable to see how visitors from near and far have taken ownership of the island and have come out and participated in this project," he said. "The last day, volunteers were still wanting to work, even though it was planned as a family fun day with a picnic."

Roughly 17 acres on the island at the mouth of the White Oak River became part of the state park in 2007 with help from the Coastal Federation, a Clean Water Management Trust



Day camps are occasionally held on Jones Is-land to teach about coastal habitats.

Fund grant and a donation of 10 acres held by Audubon North Carolina.

One small tract remains in private ownership. On bluffs at the island's center, the former owner had fashioned a crude campground, and some of its small buildings have been made serviceable.

Day camps were begun on the island in 2010, with youngsters learning about coastal habitats, in part by helping with the labor-intensive oyster reef and marsh grass projects.

The oyster sills and revetments primarily are created from bags of discarded oyster shells. Along with the marsh grass, these slow erosion and provide a place for new, young oysters to attach and begin their job of cleaning the water and attracting a diverse group of fish and other marine creatures.

Thousands of bushels of oyster shells have been carefully placed, partly with the help of a federal stimulus grant through the National Oceanic and Atmospheric Administration.

'PARK' IT

WITH A STATE PARKS SPECIALTY LICENSE TAG



The Division of Motor Vehicles is accepting applications and payment for these special license plates. There is a \$30 fee in addition to regular license fees (\$60 for personalized plates). Additional fees support conservation through the Parks and Recreation and Natural Heritage trust funds.

Information at www.ncparks.gov or www.ncdot.org/dmv

NORTH CAROLINA STATE PARKS

Monthly Attendance Report July, 2013

NC STATE	háy	TUTAL TID	hdy	TOTAL TID	% CHANGE
PARE	2013	Jul-13	2012	M-12	[2013/2012]
					.≡ YID
Carolina Beach State Park	57,052	307,478	59,366	359,712	-4% -15%
Carvers Creek State Park	a	a	a	-	-100% -100%
Chimney Rock State Park	31,875	118,305	36,482	110,981	-13% 7%
Cliffs of the Neuse State Park	18,832	130,233	21,777	112,353	-14% 16%
Crowders Mountain State Park	31,107	203,384	25,286	191,406	
Dismal Swamp State Park	11,124	73,81B	6,091	45,069	83% 64%
Elk Knob State Park	2,687	14,259	4,121	20,368	
Eno River State Park including			-,		
Occoneechee Mountain State Matural Area	47,679	298,558	47,091	306,124	1% -2%
Falls Lake State Recreation Area	170,646	692,149	142,548	631,654	
Fort Fisher State Recreation Area	168,315	560,277	137,896	531,144	
Fort Macon State Park	203,936	764,826	193,046	804,748	6% -5%
Goose Creek State Park	3 0,50 3	161,540	27,546	154,976	
Gorges State Park	22,614	69,376	18,986	65,430	19% 6%
Grandfather Mountain State Park	9,510	34,402	9,778	42,433	
Hammocks Beach State Park	18,872	78,831	18,572	83,112	2% -5%
Haw River State Park	3,692	15,474	3,652	19,116	
Hanging Rock State Park	57,859	246,682	60,248	278,198	
Jones Lake State Park	17,054	E2,696	24,591	B1,512	
Jordan Lake State Recreation Area	188,004	750,296	176,976	786,112	
Jodey's Ridge State Park	230,714	B23,724	167,596	597,290	
Kerr Lake State Recreation Area	183,176	639,964	201,666	752,326	-9% -15%
Lake James State Park	58,01B	236,732	57,5 64	265,874	
Lake Norman State Park	30,063	181,710	62,406	333,774	
Lake Wacraman State Park	17,121	90,645	16,183	83,570	
Lumber River State Park	3,738	24,886	6,028	33,781	
Mayo River State Park	6,088	24,000	1,634	16,970	
Merchants Millpond State Park	21,335	151,203	18,117	185,784	
Medoc Mountain State Park	9,984	52, 554	9,330	58,474	
Mount Mitchell State Park	26,629	105,536	49,211	158,603	
Morrow Mountain State Park	20,025	147,104	39,676		-100% - 25 %
New River State Park including	_	247,124	33,570	22.13.71	-1117 -117
Mount Jefferson State Natural Area	39,853	146,603	48,391	155,375	-18% -6%
Pettigrew State Park	10,51A	-	8,720	42,214	
Pilot Mountain State Park	38,739	238,455	47,422	258,711	
Raves Rock State Park	13,442	-	12,855	107,220	
Singletary Lake State Park	2,143	10,620	2,567	13,536	
South Mountains State Park	18,548	-	22,849	124,691	
Stone Mountain State Park	30,808	195,180	49,489	205,029	
Weymouth Woods-Sandhills Nature Preserve	4,552	35,632	49,469 4,389	32,777	
William B. Umstead State Park	104,520	694,689	-		-6% -0%
Les Island State Natural Area	104,520	-	111,178	695,726	-070 -U70 -100% -100%
	1 444 444	0 527 117	1 864 635		
SYSTEMANDE TOTAL	1,941,486	B,682,112	1,951,525	8,972,222	-134 -374



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SAFETY ZONE

DRIVING SAFELY AT RR CROSSINGS

✓In the U.S., trains collide with a person or vehicle about every two hours, usually within 25 miles of the victim's home.

✓Keep in mind that at 30 mph, a 100-car freight train takes 2/3 of a mile to stop.

✓ Cross tracks only at designated crossings and observe all warning signs and signals.

✓ Never drive around lowered railroad gates -- it's illegal and deadly. If you suspect a malfunctioning gate, call 911.

The Steward
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